

PRODUCT DESCRIPTION DOCUMENT

Experimental Tropical Cyclone Surface Wind Speed Probabilities - Text

APPROVED Signed by LeRoy Spayd **Date:** 4/29/05
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Experimental Tropical Cyclone Surface Wind Speed Probabilities - Text

Part I - Mission Connection

- a. Product Description - The Tropical Cyclone Surface Wind Speed Probabilities text product is an experimental product showing probabilities, in percent, of sustained wind speeds equal to or exceeding 34-, 50-, and 64-knot wind speed thresholds. These wind speed probabilities are based on the track, intensity, and wind structure uncertainties during recent years in the official forecasts from the National Hurricane Center and the Central Pacific Hurricane Center and are computed for coastal and inland cities as well as offshore locations (e.g., buoys).
- b. Purpose – These experimental products are intended to provide users with information that enhances their ability to make preparedness decisions specific to their own situations. Customers have requested additional tropical cyclone probabilistic information, and the National Research Council's Fair Weather Report encourages probabilistic products. Through the experimental period from June 1– November 15, 2005, the intent is to receive input from users of the product to determine the benefits and usefulness of the product and the product formats.
- c. Audience – The emergency management community is the primary target audience. However, this product will also be widely used by other federal, state, and local government agencies; nations in the Americas, Caribbean, east and central Pacific; the media; maritime interests; and the general public.
- d. Presentation Format – Text products will be displayed on the Internet and disseminated with new WMO headers via the EMWIN and NWWS.
- e. Feedback Method - Continuous feedback is available via an Internet page e-mail link. Those interested in supplying feedback should go to:

Atlantic/East Pacific <http://www.nhc.noaa.gov/feedback-pws.shtml>
Central Pacific <http://www.prh.noaa.gov/cphc/pages/probtext.php>

Technical questions may be addressed to:

National Weather Service
Attn: Richard Knabb
Tropical Prediction Center
11691 S.W. 17th Street
Miami, FL 33165-2149

or e-mail to: richard.knabb@noaa.gov

Policy questions may be addressed to:

National Weather Service

Attn: Scott Kiser
W/OS21
1325 East West Highway
Silver Spring, MD 20910

or e-mail to: scott.kiser@noaa.gov

Part II - Technical Description

- a. Format & Science Basis - The products are statistically based on track, intensity, and wind structure uncertainties during recent years in the official tropical cyclone forecasts produced by the respective tropical cyclone forecast center. The products provide probabilities for sustained wind speeds equal to or exceeding three wind speed thresholds: 34-, 50- and 64-knots. Two types of probability values are produced: individual interval and cumulative. Individual interval probabilities are provided for each of the following time intervals: 0-12 hours, 12-24 hours, 24-36 hours, 36-48 hours, 48-72 hours, 72-96 hours, and 96-120 hours. These individual interval probabilities indicate the chance that the particular wind speed will *start* during each interval at each location. Cumulative probabilities are also produced for the following time periods: 0-12 hours, 0-24 hours, 0-36 hours, 0-48 hours, 0-72 hours, 0-96 hours, and 0-120 hours. These cumulative probabilities indicate the overall chance that the particular wind speed will occur at each location during the period between hour 0 and the forecast hour.
- b. Product Availability - These experimental text products are intended to be made available by the issuance deadlines for routine advisories (03, 09, 15, and 21 Coordinated Universal Time – UTC) and to be included with special advisories for all tropical and/or subtropical cyclones. However, due to the experimental status of the products, routine and timely dissemination cannot be guaranteed.

Static examples and a detailed description of the product are available for the following basins:

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| Atlantic/East Pacific | http://www.nhc.noaa.gov/feedback_pws.shtml |
| Central Pacific | http://www.prh.noaa.gov/cphc/pages/probtext.php |

- c. Additional Information
A full description of other NWS Tropical Cyclone Weather Services Program Products is provided in NWSI 10-601, which is available on the Internet at:

http://www.nws.noaa.gov/directives/010/operation_services.htm